

FROM : S K AGGARWAL

FAX NO. : 91 1124362434

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**By Speed Post**

No. J-13011/14/2008-IA.II(T)  
Government of India  
Ministry of Environment & Forests

Paryavaran Bhavan,  
C.G.O. Complex, Lodi Road,  
New Delhi-110003.

Dated the 17<sup>th</sup> December, 2008

To

M/s Tata Power Company Limited  
Jamshedpur- 831 016  
Jharkhand.

**Sub: 120 MW Coal based Thermal Power Project Expansion Unit 5 at  
Jojobera, Jamshedpur, District East Singhbhum, Jharkhand by M/s  
Tata Power Co. Ltd - Environmental clearance regarding.**

The undersigned is directed to refer your communication no. Jojo/U5/ ckr/158/moef dated 5<sup>th</sup> February, 2008 on the subject mentioned above. Subsequent information furnished vide letter dated 5.6.2008 and 10.11.2008 have also been considered.

2. The proposal is for grant of environmental clearance for setting up of a 120 MW coal based thermal power project as expansion unit 5 at Jojobera, Jamshedpur, District East Singhbhum, Jharkhand. Coal requirement is estimated at 1500 TPD, which will be obtained from West Bokaro. The land requirement is 5.2 ha for the main power plant, which is available within the existing plant of Tata Power. The water requirement for the proposed unit no. 5 will be met out of the existing allocation of 48 mld. The auxiliary fuel will be used during startup only and its requirement is estimated as 243 kld. Public hearing was held on 20.9.2007. No ecologically sensitive area is reported in 10 km radius of the plant boundary. Total cost of the project is Rs. 620.00 crores, which includes Rs. 42.15 crores for environmental protection measures.

3. The proposal has been considered by the Expert Appraisal Committee for Thermal Power and Coal Mine projects and Ministry of Environment & Forests hereby accords environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions:-

- (i) The total land requirement for the project shall be restricted to 5.2 ha.
- (ii) Sulphur and ash contents in the coal to be used in the project shall not exceed 0.6% and 37% respectively.
- (iii) The height of the stack shall be as per the standards prescribed in this regard or 150 m whichever is more. The stack shall be provided with continuous online

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- monitoring equipments for SO<sub>x</sub>, NO<sub>x</sub> and Particulate. Exit velocity of flue gases shall not be less than 20 m/sec.
- (iv) High efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm<sup>3</sup>.
  - (v) The R&M programme in respect of the existing units shall be taken up so as to ensure that the particulate emission from the existing units no. 1, 2 and 3 be brought down to 75 mg/Nm<sup>3</sup> and for unit no. 4 to 50 mg/Nm<sup>3</sup>. The improvement from the existing units shall be achieved within a period of 18 months from date of clearance of this letter.
  - (vi) Space provision shall be kept for retrofitting of FGD, if required at a later date.
  - (vii) Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.
  - (viii) Fly ash shall be collected in dry form and storage facility (silos) shall be provided. 100% utilization of fly ash shall be achieved from day one. Unutilized bottom ash shall be disposed off in the existing ash pond. There shall be no ash pond as part of this project. Mercury and other heavy metals (Hg, Cr, Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond.
  - (ix) Closed cycle cooling system with induced cooling towers shall be provided. The effluents shall be treated as per the prescribed norms.
  - (x) The treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements shall be made that effluents and storm water do not get mixed.
  - (xi) A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.
  - (xii) Conservation plan for the schedule-I animals shall be prepared in consultation with State Wildlife Deptt. and be implemented under their supervision and control. Separate funds for the same shall be earmarked in the project cost.
  - (xiii) Rainwater harvesting should be adopted. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of clearance and details shall be furnished.
  - (xiv) Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry at Bhubaneswar.
  - (xv) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
  - (xvi) Storage facilities for liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area where risk is minimum to the storage facilities. On site and off site Disaster Management Plans shall be prepared to meet any eventuality in case of an

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- accident taking place. Mock drills shall be conducted regularly and based on the same, modifications required, if any shall be incorporated in the DMP. Sulphur contents in the liquid fuel shall not exceed 0.26%.
- (xvii) Regular monitoring of ground water in and around the existing ash pond area including heavy metals shall be carried out, records maintained and six monthly reports shall be furnished to the Regional Office of this Ministry.
  - (xviii) A green belt of adequate width and density shall be developed around the plant periphery covering about 1/3 of the project area preferably with local species.
  - (xix) Activities under CSR shall be enhanced with proper financial allocation. Details of these activities shall also be submitted to the Regional Office of the Ministry, SPCB and the Ministry.
  - (xx) First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
  - (xxi) Noise levels emanating from turbines shall be controlled in a manner such that the noise in the work zone is limited to 75 dBA. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.
  - (xxii) Regular monitoring of ground level concentration of SO<sub>2</sub>, NO<sub>x</sub>, SPM, RSPM and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry.
  - (xxiii) The project proponent shall advertise in at least two local news papers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality/ Municipal area/Gram Panchayat concerned and on the company's web site within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>.
  - (xxiv) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
  - (xxv) Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to this Ministry/ Regional Office/CPCB/SPCB.
  - (xxvi) Regional Office of the Ministry of Environment & Forests located at Bhubaneswar will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring.
  - (xxvii) Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of

the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.

- (xxviii) The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.
- (xxix) Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bhubaneswar /the CPCB/the SPCB who would be monitoring the compliance of environmental status.

4. The project proponent will upload the compliance status of the various stipulated conditions and environmental safeguards in their website.


5. The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. MOEF may impose additional environmental conditions or modify the existing ones, if necessary.

6. The environmental clearance accorded shall be valid for a period of 5 years to start of production operations by the power plant.

7. In case of any deviation or alteration in the project proposed from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.

8. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.

9. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

  
(Dr. S.K. Aggarwal)  
DIRECTOR

**Copy to:**

1. The Secretary, Ministry of Power Shram Shakti Bhawan, Rafi Marg, New Delhi-110001.
2. The Secretary (Environment & Forests), Government of Jharkhand, Ranchi.

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3. The Chairman, Central Electricity Authority, Sewa Bhawan, R. K. Puram, New Delhi-110066.
4. The Chairman, Jharkhand Pollution Control Board, TA Building, HEC Complex, P.O. Dhurwa, District Ranchi - with a request to display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's office for 30 days.
5. The Chairman, Central Pollution Control Board, Parvesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
6. The Chief Conservator of Forests, Eastern Regional Office, Ministry of Environment & Forests, 194, Kharvela Nagar, Bhubaneswar-751001.
7. The Director (EI), MOEF.
8. Guard file.
9. Monitoring File.

(Dr. S.K. Aggarwal)  
DIRECTOR